GOVERNMENT OF INDIA
WATER RESOURCES
LOK SABHA

STARRED QUESTION NO:325
ANSWERED ON:18.04.2005
FLOOD DUE TO SHRINKING OF GANGOTRI GLACIER
Nedurumalli Janardhana Reddy Shri ;Owaisi Shri Asaduddin

Will the Minister of WATER RESOURCES be pleased to state:

(a) whether according to a study made by the Worldwide Fund (WWF) for nature, Himalayan glaciers, including Gangotri have been receding every year due to global warming;

(b) if so, the details thereof and the reasons therefor;

(c) whether WWF has warned of heavy floods in India in the initial stage and acute shortage of water in the later decades;

(d) if so, whether the Government has studied the observations of WWF;

(e) if so, the details thereof; and

(f) the remedial steps taken or being taken by the Government in this regard?

Answer

THE MINISTER OF WATER RESOURCES (SHRI PRIYA RANJAN DASMUNSI)

(a) to (f) A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) to (f) OF STARRED QUESTION No.325 TO BE ANSWERED IN LOK SABHA ON 18.4.2005 REGARDING FLOOD DUE TO SHRINKING OF GANGOTRI GLACIER.

(a) to (c) The report entitled "An Overview of Glaciers, Glacier Retreat, and Subsequent Impacts in Nepal, India and China" of WWF Nepal Programme reveals that the Himalayan glacier including Gangotri glaciers have been found to be in a state of general retreat. The report has posited that the accelerated melting of glaciers would cause an increase in river levels over the next few decades, initially leading to higher incidence of flooding and land-slides but in the longer term, as the volume of ice available for melting diminishes, a reduction in glacial runoff and river flows can be expected.

(d) & (e) The issues related to characteristic of glaciers are studied by various organisations in the country including Geological Survey of India. The studies carried out by Geological Survey of India also reveal that the glaciers are receding. The causative factors are stated to be subnormal snowfall, higher temperature during summer, less severe winter or a combination of all them. Thus, even the reduction in the snowfall in the catchment may lead to recession of the glaciers without any appreciable change in the melting regime, the recession of the glaciers alone may not necessarily mean release of excess water in the Glacier−fed Himalayan Rivers. The Geological Survey of India has further stated that if the recession is only due to higher melting of the Glacier, then there may be some increase in the river discharge. However, this process is a very slow one and if the past is any key to the future, then heavy floods may be an apprehension only.

(f) The Ministry of Science & Technology has identified the possible measures for reducing the recession of glacier which include conservation activities such as afforestation, removal of garbage, restrictions on human interference on glaciers and promotion of sustainable eco-tourism. The Ministry of Water Resources has already identified "likely effect due to climate change on water resources" as a thrust area for studies.